Listing of Claims:

Claims 1-15 (Previously Cancelled)

16. (Previously Added) A memory storage system having devices organized in physical data blocks for physical storage of data and at least one processor including an operating system having an extent based file system for abstracting file names to the physical data blocks in the devices by assigning an inode to each file,

each inode adapted to store extents having a field to point to a logical volume, at least two of the extents being direct extents indicating a logical volume containing data blocks, a first direct extent pointing to first data blocks in the data storage devices and a second direct extent pointing to second data blocks in the data storage devices, the first direct extent indicating a different logical volume than a second direct extent.

17. (Previously Added) The memory storage system of claim 16, wherein the inode further comprises at least one indirect extent pointing to third data blocks storing a third direct extent.

18. (Previously Added) The system of claim 17 wherein each extent further includes a field to indicate whether the extent points to a block of extents or a block of data.

19. (Previously Added) The system of claim 18 wherein each extent comprises a start address field and a length field,

the start address field including a pointer to a logical volume portion and a pointer to a data block in the logical volume; and,

the length field fixing the number of consecutive data blocks pointed to by the extent.

20. (Previously Added) The system of claim 19, the operating system being a UNIX based system.

21. (Previously Added) A distributed storage system, comprising:

a global cache memory;

a plurality of processors coupled to the global cache memory, each processor having a local memory for storing an operating system; and

a plurality of data storage devices coupled to the global cache memory, the devices and processors capable of communicating by posting messages to each other in the cache memory, each of the devices including a processor and local memory storing an operating system, each operating system having an extent based file system for abstracting file names to physical data blocks in the devices by assigning an inode to each file,

each inode adapted to store extents having a field to point to a logical volume, at least two of the extents being direct extents indicating a logical volume containing data blocks, a first direct extent pointing to first data blocks in the plurality of data storage devices and a second direct extent pointing to second data blocks in the plurality of data storage devices, the first direct extent indicating a different logical volume than a second direct extent;

an indirect extent being inserted in the inode between the first and second direct extents,

the indirect extent pointing to third physical data blocks in the data storage devices;

at least one extent being written to the third physical data blocks, the at least one extent pointing to fourth physical data blocks;

each of the first, second and fourth data blocks storing a segment of the file.

22. (Previously Added) The system of claim 21 wherein each extent further includes a field to indicate whether the extent points to a block of extents or a block of data.

23. (Previously Added) The system of claim 22 wherein each extent comprises a start address field and a length field,

the start address field including a pointer to a logical volume portion and a pointer to a data block in the logical volume; and,

the length field fixing the number of consecutive data blocks pointed to by the extent.

24. (Previously Added) The system of claim 23 wherein each extent comprises a start address field and a length field,

the start address field including a pointer to a logical volume portion and a pointer to a data block in the logical volume; and,

the length field fixing the number of consecutive data blocks pointed to by the extent.

25. (Previously Added) The system of claim 24, the operating system being a UNIX based system.